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| 09/089,901      | 06/03/1998  | MAMORU SHOJI         | YAMAPO575US         | 3322             |

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EXAMINER

PSITOS, ARISTOTELIS M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2653

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/089,901

Applicant(s)

SHOJI ET AL.

Examiner

Aristotelis M Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.



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### DETAILED ACTION

Applicants' response of 11/12/04 has been considered with the following results.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, claims 1 and 11 are now amended to read in part:

(from claim 1) ultimate paragraph :

"wherein, when the controller changes the control parameter, during the steps of repeating the recording and reproduction and detection, the recording and reproduction unit requires a reduced number of disk revolutions to determine the control parameter relative to a unit which records and reproduces a signal from a groove track and then records and reproduces a signal from a land track when the controller changes the control parameter".

This wherein clause recites several desired results that do not follow from the structure/elements positively recited from the preceding claim language, to wit:

a) during the steps of repeating the recording and reproduction and detection. No such Ability/means is recited to provide for such "repeating". The language is now more centered upon a functions/steps without any associated elements/means to permit, perform or recognize such.

Similarly, claim 11 recites such limitation and although the claim (11) is indeed a method, there is not positive step of "repeating" the recording, reproducing and detection steps.

Further clarification is respectfully required.

The dependent claims fail to clarify the above and fall with their respective parent claim.

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As far as the claims recite positive limitations, the following art rejections are made.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-7,9-17,19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyashita et al.

The following analysis is made:

Claim 1

Miyashita et al

An optical disk apparatus performing either  
one of recording and reproduction of an optical disk  
in which groove shaped groove  
tracks and land tracks present between the  
groove tracks are alternately connected to  
each other in a spiral shape, comprising :

See title, abstract, or col. 1,lines 63-67

a recording and reproduction unit  
for recording a signal in both at least one  
continuous groove track and at least one  
continuous land track, and after recording the

see col. 2 line 1 to line 24

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signal in both the groove track and the land track,  
then reproducing the signal from both  
the groove track and the land track;

a detector for detecting a quality of the  
signal thus recorded and reproduced by  
the recording and reproducing unit;

see col. 4 line 46 to col. 6 line 41

a controller parameter setting unit  
for setting a control parameter  
related to at least one of the recording  
and the reproduction of the optical disk;  
and

see the discussion with respect to controller 10  
and processor in the above noted passages

a controller for changing the control parameter  
set by the control parameter set  
by the control parameter setting unit,  
repeating the recording and reproduction  
performed by the recording and reproduction unit  
and detection performed by the  
detector every time the control parameter is changed,  
and determining the control  
parameter based on the quality of the signal detected  
by the detector,

see the above noted controller/processor

wherein, when the controller  
changes the control parameter, during the steps of  
repeating the recording and reproduction and detection,

repeatedly throughout the sectors on  
the disc/record

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the recording and reproduction  
unit requires a reduced number of disk revolutions  
to determine the control parameter  
relative to a unit which records and  
reproduces a signal from a groove track and then  
records and reproduces a signal from a land track  
when the controller changes the  
control parameter.

As analyzed above, the system to Miyashita et al is drawn to an optimum recording power capability in a I/g record wherein a plurality of test writing/patters are recorded, reproduced and detected and various decisions are made in accordance thereto to alter the power of the laser in order to properly record and or reproduce the information. See figures 2 and 10-12 and their associated disclosure. The examiner interprets the repeating ability inherently present by the above system when such performs the test writing and reproducing over the sectors of the disc. Since the disc is eraseable, each and every time subsequent to erasing another recording/reproducing and detection process/step/procedure occurs.

With respect to claim 2, the control parameter, write power level meets such a limitation.

With respect to claim 3, the parameter is appropriately derived.

With respect to claim 4, see col. 5 line 64 through col. 6 line 41, wherein the controller provides for an average of the sampled data and hence eliminating the influence of the inherent noise.

With respect to claim 5, the examiner interprets the fourth embodiment, starting at col 13 line 1 as meeting such (N and N+1) track, I/g.

With respect to claim 6, the detection is performed for the tracks, n, n+1, etc. and the examiner interprets such as meeting the claimed phrase "are performed at two positions apart from each other" as recited in claim 6, lines 3-4.

With respect to claim 7, the intensity of the laser beam is met.

With respect to claim 9, inherently present, sectors of lands, grooves are equal.

With respect to claim 10, jitter, symmetry, resolution, modulation, are present.

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The method claims 11-17 and 19-20 follow the above terminology but in method language and are met when the above system operates.

***Claim Rejections - 35 U.S.C. § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103 (c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1,2,7,9,11,12,17 and 19 are rejected under 35 U.S.C. 103. (a) as being unpatentable over the acknowledged prior art JP 4-141827 further considered with Moriya et al and all further considered with either Senshu or Itoi and all further consider with Miyashita et al.

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The acknowledged prior art discloses a basic parameter testing/calibrating capability wherein the parameter selected is one of power, which is equivalent to intensity.

The acknowledged prior art lacks any mention of a spiral track environment and that information can be recorded on/in all areas.

Such a capability is well known as taught by Moriya et al.

With respect to the newly inserted wherein clause, the examiner interprets such to mean that the recording of the information is continuously performed from the land to the groove (or alternatively from the groove to the land).

Either the Senshu or the Itoi reference teaches such a recording technique.

In Senshu applicants' attention is drawn to col. 4 lines 56-59, or alternatively in the Itoi reference see the description starting at col. 1 line 51 to col. 2 line 5. Either reference teaches the continuous recording of the information from the land to the groove.

It would have been obvious to one of ordinary skill in the art to modify the system of the above noted JP prior art system with the teaching from Moriya et al and both further considered with the teachings from either Senshu or Itoi, motivation is to use the above parameter setting ability with as many different types of records as possible, and hence increase the overall system use. The ability to continuously record the incoming information so as to permit recording at one continuous time and hence reduce overall recording time is considered motivation as taught by either of the references to Senshu or Itoi.

The newly added ability/step of repeating the recording, reproducing and testing although not specifically clear, is considered a capability provided by re-writable discs, i.e., those that are erasable as further taught by the Miyashita et al system – see the discussion with respect to the ability overwriting/erasing various control signals and subsequently reevaluating such – i.e., the ability of repeating the process.

It would have been obvious to modify the references noted above with the additional teaching from Miyashita et al, motivation is to expand the overall combination into the realm of re-writeable discs and hence permit the system to increase its marketability by using erasable record mediums.



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The limitations of claim 2 are considered self-evident.

For claims 7 & 17, intensity is interpreted as power.

The limitations of claims 9 and 19 are considered inherently present in Moriya et al and no further analysis is made.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection, i.e., the continuously recording ability as further taught by either Senshu or Itoi and the newly inserted ability of repeating the ability. For any further analysis, applicants' attention is drawn to the Board of Appeals decision of 4/21/04.

3. Claims 3 and 13 are rejected under 35 U.S.C. 103 (a) as being unpatentable over the art as applied to claims 1,2,11 and 12 above and further considered with the acknowledged prior art.

Applicants' have admitted that such a capability is well known in the art – see page 29 of the disclosure. No further rebuttal is deemed necessary.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection as stated above with respect to claims 1,2,11 and 12.

4. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 3 and 13 above, and further in view of Johann et al.

The ability of establishing an average of a parameter is considered well known as taught by the Johann et al reference.

It would have been obvious to one of ordinary skill in the art to modify the basic parameter setting/optimizing/establishing capability of the references as relied upon with respect to the parent claim with the teaching from Johann et al, motivation is to obtain a better optimization parameter.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection presented above.

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5. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 4 above, and further in view of the acknowledged prior art.

Again, the limitations of claims 5 and 15 are acknowledged as being well known by applicants, see page 29 of the specification. Use thereof in the overall system is considered to be obvious to one of ordinary skill in the art, motivation is to perform the parameter calibration/optimization technique in an acknowledged system.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection presented above.

6. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 3 and 13 above, and further in view of the acknowledged prior art.

Applicants have acknowledged the prior art on page 29 of the specification referring to the ability to perform the optimization/calibration at separate times/locations. Hence the examiner interprets the claim limitation " are performed at two positions spaced apart" as having been met. Additionally, due to the spiral track layout of Moriya et al, the ability of having information on both the lands and the grooves inherently meets the above language as well.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection presented above.

7. Claims 8,10,18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 11 as stated in paragraphs 1 and 2 above, and further in view of Piertrzykoski et al.

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The ability of having a plurality of parameters optimized is considered merely a duplication of effort as taught by Pietrzykoski et al, which teach the optimization for a plurality of parameters in this environment.

It would have been obvious to one of ordinary skill in the art to modify the basic parameter setting/optimization/establishing capability found in the above system with respect to the parent claim with the additional capability of doing so for a plurality of parameters as taught by Pietrzykoski et al, motivation is to perform such optimization techniques on as many parameters in the system that require correction and hence improve the overall system response.

Furthermore, Pietrzykoski et al discuss symmetry – see column 10 line 8 plus as one of those parameters.

In the above rejections, the examiner notes, that claim 11 –20 are methods which parallel the apparatus limitations as found in claims 1 – 10. The examiner considers the method limitations to be met when the system is operational.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection, presented above.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tanaka and Nishiuchi et al are cited as illustrative of I/g systems having appropriate control of parameters to ensure proper signal recording and reproducing upon the designated I/g areas of an erasable/re-writeable record and could be relied upon in place of Miyashita et al in the above rejections.

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH**

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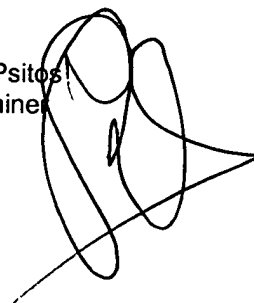
shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos  
Primary Examiner  
Art Unit 2653

A handwritten signature in black ink, consisting of a large, stylized 'A' followed by a series of loops and a long horizontal stroke extending to the right.

AMP